

(19)



JAPANESE PATENT OFFICE

**PATENT ABSTRACTS OF JAPAN**

(11) Publication number: **04238812 A**

(43) Date of publication of application: **26.08.1992**

(51) Int. Cl. **C01F 11/18**  
**C08K 3/26, C08K 7/16**

(21) Application number: **02415863**

(22) Date of filing: **28.12.1990**

(71) Applicant: **SAKAI CHEM IND CO LTD**

(72) Inventor: **KOTONE AKIRA**

**HIROTA MASAYOSHI**

**SHIBATA KATSUTOSHI**

**NAKAI YUKIO**

**TSUNAKO MITSUTOMO**

**(54) SPHERICAL CALCIUM CARBONATE AND PRODUCTION THEREOF**

**(57) Abstract:**

**PURPOSE:** To produce spherical calcium carbonate stable in the atmosphere and having excellent dispersibility, filling ability, lubricity, etc., by reacting calcium chloride with a bicarbonate salt or carbonate salt in the presence of a prescribed amount of a specific phosphate compound.

**CONSTITUTION:** Calcium carbonate is mixed with a bicarbonate salt or carbonate salt in a molar ratio of

1:0.5 to 1:2 in the presence of a specific phosphate compound (e.g. sodium trimetaphosphate or sodium tripolyphosphate) in an amount of  $\geq 0.3$ wt.% based on the theoretical yield of the produced calcium carbonate. In their reaction, an aqueous solution of the calcium chloride is maintained at 0-60°C, and mixed with the bicarbonate or carbonate salt with stirring. After the reaction, the product is filtered, washed with water and subsequently dried to provide the spherical calcium carbonate having an average particle diameter of 4-8 $\mu$ m and containing  $\geq 30\%$  of the vaterite form.

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